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Apple II SCSI Card: Product Description (11/96)

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Security: Everyone

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TOPIC -----

This article contains the technical specifications for the Apple II SCSI card.

DISCUSSION -----

Technical Specifications

Hardware

Provides an electrical interface between external SCSI devices and the CPU.

Provides the address and control lines required by the Apple II's microprocessor for accessing and controlling the SCSI chip and Smartport firmware.

Provides other circuitry to interface the 5380 IC with the Apple II CPU control signals.

NCR 5380 SCSI IC

Implements SCSI bus (5380 data sheet in Chapter 2 of the Hardware Technical Reference manual).

On board RAM

8 banks of 1K, accessed with special logic circuits. Used for status of devices at SCSI bus initialization (including the status of the Apple II SCSI card itself)

On Board ROM

8 banks of 1K, accessed with special logic circuits and used for storing
Smartport firmware

Interface

25-pin SCSI connector

Input/Output

Parallel transmission, two modes for data i/o operations
- PDMA (pseudo-DMA), default
- Block Move only supported by 65816 CPUs and must be enabled by the
application
- Maximum storage area under ProDOS: 32 megabytes

Firmware

Smartport program converts the microprocessor commands or calls issued by CPU to
a format compatible with external SCSI devices

Issues calls to the microprocessor to give it the status of the external SCSI
devices and allow the CPU to control their operation

Commands supported: STATUS, READ BLOCK, WRITE BLOCK, FORMAT, CONTROL, INIT,
OPEN, CLOSE, READ, WRITE

Boot capability with Autostart ROM when you install the card in the slot with
highest priority, which may depend on the operating environment

When Smartport does not find the SCSI device capable of starting up the system,
Smartport returns control to the environment of the Apple II and the startup
search continues through lower-priority slots.

Electrical

Voltage requirement: 4.75 to 5.25 volts DC
Power consumption in milliamps (ma)
Standby: 340 ma
Operating: 390 ma

Environmental

Ambient temperature: 50 to 104 deg F (10 to 40 deg C)

Relative humidity: 20 to 95 percent (non condensing)

System Requirements

Apple II GS, Apple IIe or Apple II Plus

Apple II SCSI Card

Apple SCSI System Cable

One or more SCSI-compatible peripherals, can be a high-speed printer interface

Daisy chaining

Apple II with the SCSI card in slot 5 and ONLY a serial printer or modem card in slot 2.

- Running ProDOS 1.2: 4 external devices
- Running ProDOS 16: 7 external devices

Additional SCSI system components as required

Cable Terminator

Peripheral Cables

Cable Extenders (Maximum total length of cables: 20 feet (6.5 meters)).

Read the manual for the Apple SCSI Cable System before trying to connect any SCSI devices.

Article Change History

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